**Bioethics: Debates in Genetics**Time frame: 6 days: 2-3 days research & outline, 2-3 days presentation

Debate preparation, presentation, and evaluation last about one week.

The structured debate constitutes 50% of the overall grade, the other 50% comes from the problem solving worksheet and deciding factors.

1. Assign topics; each student is assigned an affirmative or negative of a particular premise.
2. After assigning the groups, students supply their own research for their debate. (2 days)
3. Day 2-3 outline the research and develop a case study that illustrates your point of view for presenting

**(A case study consists of a problem, the implementation and the results. INCLUDE SOURCES)**

1. Students will use a decision making model to tackling these questions for voting.
2. Final essay on what was covered.

**Examples of Case Study topics are listed below: (For other options- see the teacher)**

1. A zoo should be allowed to clone endangered or extinct organisms.
2. Should two known carriers of Sickle Cell Anemia (CF or Tay Sachs) have a child?
3. As the head of a company, you should not hire a person based on the presence of the Huntington's gene on his chromosome #4.
4. A parent who has lost their spouse and children in an accident wants to clone one of the children. Should the medical community allow the use of this technique?
5. Should a couple have the right to choose the traits their children (or pets) will have, whether it is to eliminate a possible gene for a disease or to give them eagle eyesight, or a heart like Secretariat?
6. DNA fingerprinting should be collected at birth and kept on file to make it easier for people to be identified in the future, for both identifying potential organ donors, and for law enforcement purposes.
7. Parents with a very sick child, in danger of dying, deliberately have another child to provide possible genetic material to help heal the sick, older child.(Savior Sibling)
8. A boy faints at a basketball game due to diabetes. While he knows that it can be monitored and treated with insulin and diet, he is interested in the long-term benefits of treating it using gene therapy. Should he undergo gene therapy for his diabetes?
9. A girl with cancer is approached by her doctor with the idea of using a suicide gene form of gene therapy for treating the cancer. Should she have the experimental treatment?
10. Should Genetic engineered foods be labeled to give people informed consent on what they eat?
11. Companies invest money to genetically engineer organisms and they deserve the right to patent their product.(ex. goats whose milk produces medicines or spider silk, plants that produce their own pesticides, chickens, fish and crops that mature master, and cost less to raise, adding protein, vitamins, or terminator genes to crops.)
12. The president of an African nation where people are starving, the doctor in charge of WHO (World Health organization) and a Genetics seed company are voting to allow GE crops to be grown in the country. Provide then with the information they need.
13. A farmer’s crops are crossbred with a neighbors Genetically Engineered crop. The seed company claims that the farmer that was planting his own “heirloom” seed is now growing their patented seed and is suing to have the seed destroyed and for damages. Do they have a right to sue? Who has the best case?

**Four step approach to making decisions: (Based on your Chart with your observations)**

* 1) Gather information –on both sides of the issue;
* 2) Consider Values – consider the values that could be potentially impacted in each issue,
* 3) Explore Consequences – students should complete a chart that defines the short term positive and negative consequences as well as the long term positive and negative consequences;
* 4) Make a Decision –

**Use the following debate format for the presentations.**

***Always be respectful of your opponents and their viewpoints.***

1. Presentation; (Keep notes of your opponent’s information to help you with your responses.)

* 1-3 minute: Affirmative (1st person)
* 1-3 minute Presentation: Negative (2nd person)

(Pro/then con)

1. Rebuttal: Questioning/Responding: Only make statements based on opponents comments or ask questions:

* 30 sec to 1 - minute response- rebuttals Affirmative
* 30 sec to 1 - -minute response- rebuttals Negative

1. Group Feedback: 2 minutes: recess and gather in groups to gather ideas (ex. all pros together)
2. 1 minute to put final material together

* 30 seconds- 1 minute Final Argument- Negative
* 30 seconds-1 minute Final Argument- Affirmative

1. Observers compare worksheets and ideas for determining factor.
2. Vote.
3. After the vote, the teacher will rectify (correct) those points that were not accurate.

50 % of your grade is presentation based on the scale below. The other 50% is based on your chart that you fill in on the next page.

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| **Name**  **10 pts each topic** | **Debate is clear**  **Prepared (5)**  **Viewpoint explained (5)** | **Knew the info**  **Did not read (5)**  **Used a case study (5)** | **Response to opponent indicates understanding of concept (10)** | **Uses feedback from team for rebuttal (5)**  **Supporting information supports topic (5)** | **Validity:**  **Information is accurate (with good sources) (10)** | **Debate Rubric- 50 pts. total** |
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**Four step approach to making decisions: Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **Names: Topic** | | **List Values discussed: Economic, Moral** | **Short-term positive** | **Long term positive** | **Short-term negative** | **Long term negative** | **Deciding Factor** |
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**Discussion Topic Rubric**

1. What was your debate topic and what was your role in the debate (affirmative or negative)?
2. Describe your research based case study. What were your arguments for your debate?
3. Did your side win or lose the debate, and why do you think this happened?
4. What were your personal feelings on your debate topic?
5. What was your favorite part of the debates in our classroom? Explain your answer.
6. Was there a particular debate topic about which you have strong feelings?
7. Give/name reasons why I should continue using debate as a teaching tool.

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